

**WHAT IS CLAIMED IS:**

1. A method comprising:
  - a first node recording a first node local time of receiving a wirelessly transmitted packet, the first node local time recorded with a monotonically increasing clock of the first node;
  - a second node recording a second node local time of receiving the wirelessly transmitted packet, the second node local time recorded with a monotonically increasing clock of the second node
  - the first node wirelessly transmitting the recorded local time to at least a second node;
  - the second recording the first node local time of receiving the wirelessly transmitted packet; and
  - the second node updating a second node timing model to synchronize with the first node, the updating based on the second node local time of receiving the wirelessly transmitted packet and the first node local time of receiving the wirelessly transmitted packet.
2. The method of claim 1, wherein the wirelessly transmitted packet received by the first and second node is a beacon transmitted from a wireless access point.
3. The method of claim 1, further including:
  - synchronizing sample numbers of a multimedia stream on the second node with the timing model of the second node, the timing model of the second node having been synchronized with the first node.

4. The method of claim 3, wherein the synchronization of sample numbers in I/O operations is performed by time-stamping IRQs request with the global time.

5. The method of claim 1, further including repeating the method of claim 1 to generate an updated second node timing model to synchronize with the first node.

6. The method of claim 5, wherein the repeating the method of claim 1 to generate an updated second node timing model includes using a least trimmed squares regression to limit a magnitude of updates.

7. The method of claim 6, further includes:

a third node recording a third node local time of receiving the wirelessly transmitted packet from the first node and recording the first node local time of receiving the wirelessly transmitted packet; and

the third node updating a third node timing model to synchronize with the first node, the updating based on the third node local time of receiving the wirelessly transmitted packet and the first node local time of receiving the wirelessly transmitted packet.

8. A machine-readable medium having stored thereon a set of instructions which when executed cause a system to perform a method comprising of:

a first node recording a first node local time of receiving a wirelessly transmitted packet, the first node local time recorded with a monotonically increasing clock of the first node;

a second node recording a second node local time of receiving the wirelessly transmitted packet, the second node local time recorded with a monotonically increasing clock of the second node

the first node wirelessly transmitting the recorded local time to at least a second node;

the second recording the first node local time of receiving the wirelessly transmitted packet; and

the second node updating a second node timing model to synchronize with the first node, the updating based on the second node local time of receiving the wirelessly transmitted packet and the first node local time of receiving the wirelessly transmitted packet.

9. The machine-readable medium of claim 8, wherein the wirelessly transmitted packet from received by the first node is a beacon transmitted from a wireless access point.

10. The machine-readable medium of claim 8, further including:  
synchronizing sample numbers of a multimedia stream on the second node with the timing model of the second node, the timing model of the second node having been synchronized with the first node.

11. The machine-readable medium of claim 10, wherein the synchronization of sample numbers in I/O operations is performed by time-stamping IRQs request with the global time.

12. The machine-readable medium of claim 8, further including repeating the method of claim 1 to generate an updated second node timing model to synchronize with the first node.

13. The machine-readable medium of claim 12, wherein the repeating the method of claim 1 to generate an updated second node timing model includes using a least trimmed squares regression to limit a magnitude of updates.

14. The machine-readable medium of claim 13, further includes:

a third node recording a third node local time of receiving the wirelessly transmitted packet from the first node and recording the first node local time of receiving the wirelessly transmitted packet; and

the third node updating a third node timing model to synchronize with the first node, the updating based on the third node local time of receiving the wirelessly transmitted packet and the first node local time of receiving the wirelessly transmitted packet.

15. A system comprising:

a processor;

a wireless network interface coupled to the processor; and

a machine readable medium having stored thereon a set of instructions which when executed cause the system to perform a method comprising of:

a first node recording a first node local time of receiving a wirelessly transmitted packet, the first node local time recorded with a monotonically increasing clock of the first node;

a second node recording a second node local time of receiving the wirelessly transmitted packet, the second node local time recorded with a monotonically increasing clock of the second node

the first node wirelessly transmitting the recorded local time to at least a second node;

the second recording the first node local time of receiving the wirelessly transmitted packet; and

the second node updating a second node timing model to synchronize with the first node, the updating based on the second node local time of receiving the wirelessly transmitted packet and the first node local time of receiving the wirelessly transmitted packet.

16. The system of claim 15, wherein the wirelessly transmitted packet from received by the first node is a beacon transmitted from a wireless access point.

17. The system of claim 15, further including:

synchronizing sample numbers of a multimedia stream on the second node with the timing model of the second node, the timing model of the second node having been synchronized with the first node.

18. The system of claim 17, wherein the synchronization of sample numbers in I/O operations is performed by time-stamping IRQs request with the global time.

19. The system of claim 15, further including repeating the method of claim 1 to generate an updated second node timing model to synchronize with the first node.

20. The system of claim 19, wherein the repeating the method of claim 1 to generate an updated second node timing model includes using a least trimmed squares regression to limit a magnitude of updates.

21. The system of claim 20, further includes:

a third node recording a third node local time of receiving the wirelessly transmitted packet from the first node and recording the first node local time of receiving the wirelessly transmitted packet; and

the third node updating a third node timing model to synchronize with the first node, the updating based on the third node local time of receiving the wirelessly transmitted packet and the first node local time of receiving the wirelessly transmitted packet.